Hood Canal Coordinating Council

Hood Canal Aquatic Rehabilitation Program

Technical Advisory Committee Organizational Meeting

Silverdale Beach Hotel
3073 NW Bucklin Hill Rd, Silverdale, WA

June 22, 2009
1:00 p.m. – 3:30 p.m.

Summary

The Washington State Legislature established the Hood Canal Aquatic Rehabilitation Program (RCW 90.88) designating the Hood Canal Coordinating Council (HCCC) as the local management board for addressing the low dissolved oxygen problem in Hood Canal. The HCCC Board called for the formation of the Hood Canal Aquatic Rehabilitation Technical Advisory Committee to advise and assist HCCC Board members in their deliberations and development of programs and management actions to address low dissolved oxygen.

HCCC Board members identified individuals and organizations whose expertise and experience would be especially valuable in considering scientific data and findings and developing specific recommendations for management actions. These individuals and organizations were invited to the initial June 22, 2009 organizing meeting of the Technical Advisory Committee. The invitation encouraged suggestions for other appropriate participants.

To be effective, the Technical Advisory Committee needs to include representatives from the land use authorities, agencies and other entities that will be expected to implement the recommended actions, monitor the effects of these actions, and determine their effectiveness over time. The HCCC will also seek public input and review of the recommendations at key points in the process to ensure stakeholders have an opportunity to consider and comment on the recommendations.

The purpose of this initial organizing meeting was to:

- Discuss a process for the Technical Advisory Committee to develop recommendations for the HCCC Board, including roles, responsibilities, and potential approaches;
- Articulate expectations and commitments for Technical Advisory Committee participants; and
- Identify the information and assistance the potential Technical Advisory Committee members will need in order to participate.

Background

Scott Brewer, Executive Director of the HCCC, began the meeting by providing an overview of the HCCC Board's establishment of the Technical Advisory Committee. He noted that the HCCC Board is interested in how the low dissolved oxygen issue relates to other important issues such as salmon recovery, stormwater, and land use.

Scott also provided an overview of the Hood Canal Dissolved Program, a partnership of 28 organizations that is organized into two integrated and complementary arms: the Integrated Assessment and Modeling (IAM) study and the Corrective Action and Education (CAE) group.

The IAM is a multi-year study to collect, analyze and use marine, freshwater and biota monitoring data and computer models to quantify and understand the role the various natural processes and human actions are playing to control the concentrations of dissolved oxygen in Hood Canal.

The CAE group focuses on identifying and implementing "corrective actions" and demonstration projects that will help to improve levels of dissolved oxygen in Hood Canal. This group educates and involves residents in ways they can help improve the quality of water the Canal.

HCDOP was funded for five years by Congressional appropriation, ending in 2010.

Once the HCCC Board established the Technical Advisory Committee, an ad hoc steering group was convened made up of members of the science and "corrective actions" arms of the HCDOP along with Department of Ecology and EPA staff to help identify a work process for the Technical Advisory Committee and plan this first organizational meeting.

The members of the steering group include:

Scott Brewer	HCCC Executive Director
Tom Eaton (Jo Henry, alternate)	U.S. Environmental Protection Agency
Dan Hannafious	Co-Manager of HCDOP; Assistant Executive Director of Hood Canal Salmon Enhancement Group
Bob Hager	Lower Hood Canal Watershed Coalition; HCDOP-CAE Co-Chair
Duane Fagergren	Puget Sound Partnership; HCDOP CAE Co-Chair
Jan Newton	Co-Manager of HCDOP; IAM Principal Investigator; UW Applied Physics Lab
Sally Toteff (Phil Wiatrak, alternate)	Washington State Department of Ecology
Gary Turney	IAM investigator; U.S. Geological Survey

Steering group members and other members of the HCDOP will be available as resources to the Technical Advisory Committee as that Committee's work proceeds.

In response to a question from the audience, Scott explained that the HCCC Board is accountable to the state legislature for the Aquatic Rehabilitation Program for Hood Canal. Duane Fagergren, Puget Sound Partnership staff, member of the CAE group, and member of the Steering Committee, noted that through the Technical Advisory Committee, HCCC intends to provide a forum for local decision-makers to develop a response to low dissolved oxygen issues, with state level assistance if needed. He said that the Puget Sound Partnership would be reporting progress to various legislative committees that track Puget Sound.

Organization and Expectations of the Technical Advisory Committee

Betsy Daniels, facilitator with Triangle Associates, and members of the steering group in attendance explained that developing a response to the low dissolved oxygen problem in Hood Canal is currently transitioning from the HCDOP CAE group to the Technical Advisory Committee, which will represent the local jurisdictions, the people and entities who will likely be responsible for implementation.

Duane pointed out that any "corrective actions" taken by tribal and local governments would be implemented through their own tribal and local governance structures.

Betsy explained that the steering group had developed a draft "work plan" outline as a potential tool for the Technical Advisory Committee to identify information needed and to evaluate projects and policies to address low dissolved oxygen.

Betsy reviewed the draft work plan with the meeting participants. The draft work plan contains six sections:

Section One: Goal Statement for Addressing Low Dissolved Oxygen in Hood Canal
Section Two: Problem Statement on Low Dissolved Oxygen in Hood Canal
Section Three: Information Needed to Identify Solutions
Section Four: Project or Management Actions Identified or to be Studied
Section Five: Framework for Evaluation of Actions
Section Six: Monitoring, Adaptive Management and Accountability

Betsy explained that the draft work plan represented only an initial idea of how the Technical Advisory Committee might best approach the development of recommendations for addressing low dissolved oxygen.

Betsy noted that while the HCCC Board had established the Technical Advisory Committee, the Committee may choose to report to additional audiences.

Discussion

Meeting participants were asked to provide input on the following questions:

- What information does the Technical Advisory Committee need to participate in this process effectively?
- What issues should the Technical Advisory Committee consider?
- What should the Technical Advisory Committee process look like?
- Is there anyone not represented on the Technical Advisory Committee who should be here?

Comments and questions from meeting participants are summarized below.

Information that Technical Advisory Committee Members Need

Question: Can HCDOP-IAM tell us the top five actions that would most effectively address the low dissolved oxygen problem. The Technical Advisory Committee can then discuss their feasibility.

Response (Jan Newton): The IAM scientists can provide perspective on reducing the nitrogen load to Hood Canal, but we are not familiar with what kinds of land use activities, actions, projects or regulations are available and would be most effective.

IAM research shows that nitrogen loading in the southern region of Hood Canal has a significant impact on dissolved oxygen and that on-site septic systems are the most significant source of that nitrogen. But we don't know if the best solution would be to build a sewer system, use new septic system technology, or something else.

The question of how much nitrogen is generated by land use practices is more difficult to answer. The scientists and local jurisdictions need to establish a dialogue to start to identify the best ways to address the problem.
Response (Gary Turney): Also, scientists believe they should not drive corrective actions or recommendations. Scientists can have credibility problems if people wonder whether they have ulterior motives for their recommendations.

Comment: The Technical Advisory Committee needs to find out what Technical Advisory Committee members already know about the problem and what topics they think are important. We need to know about any existing programs that are working on this issue and how.

Question: Does IAM have a model that shows the ideal, natural system so we can figure out how to approximate it?
Response (Jan Newton): IAM has created several models that mimic natural processes on land and in the water. The problem is that more uncertainty exists in the models for lower Hood Canal than for the mainstem. So, the models can provide guidance for desired future conditions but they are imperfect tools.

Comment: Department of Ecology has questions about what the models can tell us about alders, Alderbrook resort, wastewater plants, on-site septic systems, upland disposal, timber harvest, and population growth as they relate to nitrogen loading in Hood Canal.

Issues to be Considered by the Technical Advisory Committee
Comment: The Technical Advisory Committee needs to consider how to communicate with the public.

Comment: Mason County has learned in the last few years that building sanitary sewer is extremely expensive and not always feasible because of current land use rules. Sewers alone will not be the solution, so we need a more comprehensive approach. We need to consider land use, stormwater control, and other issues.

Comment: The Technical Advisory Committee needs to address the kinds of land uses that are allowed in Mason County with no buffer to Hood Canal.

Comment: The Technical Advisory Committee needs to talk not just about a reduction in nitrogen, but the conversion of nitrogen to benign compounds.

Comment: The real problem is excess production of phytoplankton. In addition to nitrogen management, we need to consider how to prevent phyotoplankton from growing.

Comment: The Technical Advisory Committee could consider mechanical methods of aerating Hood Canal to increase dissolved oxygen.

Comment: The IAM models have been developed without an understanding of current forestry practices. If the issue of red alders is studied, it will become clear that alders are not a significant factor affecting dissolved oxygen in Hood Canal.
Response (Dan Hannafious): We hope Technical Advisory Committee members can provide input on forestry practices and other important issues.

Technical Advisory Committee Scope, Organization and Process
Question: Is the intent that members of the Technical Advisory Committee will review potential corrective actions and identify which actions their jurisdictions can take on? Who will fund new actions?
Response (Betsy Daniels): Some work has been to date to identify and test actions, but there is more to be done. The Technical Advisory Committee will need to develop ideas for actions, consider how they line up with goals or targets or achievement over time, and make recommendations.
Response (Scott Brewer): While the Technical Advisory Committee is identifying potential actions, the work of the IAM scientists will continue for some time and these efforts can inform one another.
Response (Gary Turney): The "Holy Grail" is to come up with suggested action items that the Technical Advisory Committee thinks are feasible and that could make a difference in Hood Canal. Scientists have made progress in understanding the Hood Canal system, but we do not come from management agencies, and management agencies are the ones that make things happen. If this group can come to some conclusions about what they want to test with the models, the scientists may be able to run a test or the model may not be able to answer certain questions, but as a group we can start to narrow in on what is feasible and would make a difference.
Response (Duane Fagergren): Some topics or geographic areas may be addressed in subcommittees and some Technical Advisory Committee members may take on assignments to narrow in on a message that is meaningful and corrective actions that make sense to share with the HCCC Board and the state. Many people will be paying attention to this Technical Advisory Committee. It is very important for the policy-makers to be connected to people at the local government level who know how things play out in the local community.

Question: Is the intent to address both long-term approaches, like changing policy at the county level, and short-term approaches like on-the-ground mitigation efforts?
Response (Scott Brewer): Yes.

Comment: We should distinguish which meetings are about long-term actions and which are about short-term actions.

Comment: We have not heard from the scientists about what the nitrogen reduction target should be. It will be difficult to set priorities if we have a moving target.
Response (Gary Turney): The scientists can look at a specific action and predict what the resulting nitrogen reduction will be and how that might affect dissolved oxygen in Hood Canal. As a group we can consider if this action would get us where we want to be in terms of oxygen in Hood Canal. If not, then we could consider more actions.
Response (Jan Newton): This question gets to the topic of risk analysis. Because of the high natural annual variability of dissolved oxygen, it is not possible to say if we reduce nitrogen by X amount the problem will be solved. We can say we want to minimize our risk by X percent. Risk assessment experts can help with this.

Comment: I understand that it's hard to set a nitrogen reduction target, but we already know that reducing nitrogen will reduce risk so we can proceed with that.

Comment: It seems there are two tracks the Technical Advisory Committee can pursue simultaneously. One is to set a percent reduction target for nitrogen using current loading estimates and based on risk assessment. The other is to monitor actions and use the results to fine tune the models so we have more certainty in future planning.

Question: Who will facilitate the Technical Advisory Committee process so it does not result in more questions and without any answers or actions?
Response (Scott Brewer): The idea is that the HCCC Board will provide direction and that the Puget Sound Partnership and the Department of Ecology might be able to help with risk assessment and management tools. Triangle Associates will help with meeting facilitation and project management.

Question: What is the time horizon for this Technical Advisory Committee's work?
Response (Scott Brewer): Approximately one year to develop recommendations and up to an additional year to work on implementation.
Response (Duane Fagergren): I think different topics will roll out at different time frames. Tougher issues may take the full two years to address.

Comment (Scott Brewer): It may be necessary to have a session or sessions dedicated to discussing a specific issue or issues, like alders.

Question: Is the HCDOP becoming the Technical Advisory Committee, or will those two groups remain separate?
Response (Scott Brewer): They are separate programs, but they will share information and this Technical Advisory Committee may make suggestions to the IAM scientists for additional research.

Question: How is this Technical Advisory Committee or even the HCCC tied to Puget Sound Partnership? Is there a way to get Puget Sound Partnership to fund some of the actions the Technical Advisory Committee recommends?
Response (Duane Fagergren): Much of what has been funded to date in terms of on-site septic systems has been through the Action Agenda. Big wastewater treatment systems that we think

will improve water quality have been funded by many agencies, but in particular by Department of Ecology and Department of Community, Trade and Economic Development. As Puget Sound Partnership develops future Action Agendas, the Hood Canal low dissolved oxygen issue will be a high priority, partly because so much work has been done to improve and link the science to management actions. This Technical Advisory Committee will be key in using the science to develop management actions.

Participation in the Technical Advisory Committee
Comment: We need engineering expertise on the Technical Advisory Committee to help identify and evaluate corrective actions.

Comment: The Washington State Department of Transportation needs to be represented.

Comment: In order to participate in this Technical Advisory Committee, I need to know that we won't get too hung up on issues like whether or not alders are an issue or whether we have a specific nitrogen reduction target. If we did everything possible, it still wouldn't be enough to solve the problem completely, so we should identify the actions that will reduce nitrogen loading the most and move forward with them.

Next Steps & Action Items

Betsy asked the meeting participants for their input on how to structure the next Technical Advisory Committee meeting to be held in August or September 2009. The group agreed that they wanted to meet all together at the next meeting to hear from the IAM scientists about their findings.

Additional suggestions for the next meeting included the following:

- After a presentation and discussion about the science, have breakout sessions on specific topics.
- Present information about what each jurisdiction is currently doing to address low dissolved oxygen before going into breakout sessions.
- Technical Advisory Committee members should brainstorm via e-mail in advance of the next meeting about ways to reduce nitrogen inputs from on-site septic systems or alders, for example, and those ideas should be distributed for review before the meeting.
- Solicit questions about the IAM research from Technical Advisory Committee members in advance of the meeting so the scientists can tailor their presentation to the Committee members' needs.
- Distribute any available literature or background information in advance of the meeting.
- Make the next meeting long enough where so we can do a lot of work and provide a solid reading list ahead of time.
- Send the meeting date well in advance so people can get it on their calendars.

At the conclusion of the meeting, Betsy summarized next steps including:

- Distributing an online questionnaire to solicit questions from Technical Advisory Committee participants to help inform the agenda for the next full meeting.
- Distributing a summary of the June 22, 2009 meeting.

- Determining the next meeting date based on presenter availability and communicating this to Technical Advisory Committee participants as soon as possible.

Meeting Materials

- Draft Work Plan Outline
- Meeting Agenda

Attendance

Last Name	First Name	Affiliation
Barnhart	Kathlene	Kitsap County Department of Community Development
Beach	Eric	Green Diamond Resource Company
Berbels	Scott	Washington State Department of Health
Bergdolt	Fred	Washington State Department of Transportation
Brocksmith	Richard	Hood Canal Coordinating Council
Crumb	Sara	Congressman Norm Dicks Office
Dobey	Emmett	Mason County Community Development/Utilities
Donaghue	Cinde	Washington State Department of Natural Resources
Eliasson	John	Washington State Department of Health
Hart	George	United States Navy
Lumper	Randy	Skokomish Tribal Nation
Maloy	Carol	Washington State Department of Ecology
McCollum	Paul	Port Gamble S'Klallam Tribe
McKee	Kim	Washington State Department of Ecology
Rutter	Vern	Hood Canal Environmental Council
Sanford	Emily	WSU Extension
Simmons	Bob	WSU Extension
Texeira	Sue	Hood Canal Coordinating Council
Thurlow	Theresa	Kitsap County Public Works
Wallis	Renee	United States Navy
Weller	Chris	Point No Point Treaty Council
Whitford	Stuart	Kitsap County Health District
Steering Committee		
Brewer	Scott	Hood Canal Coordinating Council
Fagergren	Duane	Puget Sound Partnership, HCDOP CAE Co-Chair
Hager	Bob	Lower Hood Canal Watershed Coalition; HCDOP-CAE Co-Chair
Hannafious	Dan	Co-Manager of HCDOP; Assistant Executive Director of Hood Canal Salmon Enhancement Group
Henry	Jo	U.S. Environmental Protection Agency (alternate)
Newton (by phone)	Jan	Co-Manager of HCDOP; IAM Principal Investigator; UW Applied Physics Lab
Toteff	Sally	Washington State Department of Ecology
Turney	Gary	IAM investigator; U.S. Geological Survey
Wiatrak	Phil	Washington State Department of Ecology (alternate)

Last Name	First Name	Affiliation
Consultants		
Blair	Ellen	Triangle Associates
Daniels	Betsy	Triangle Associates